

WETLAND DETERMINATION REPORT

Assessor Parcel Number (APN):

205 – 231 – 029

Prepared For:

Organic Humboldt, LLC

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Scotia, CA 95565

Prepared By:

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Date Prepared:

March 17th, 2021

Certification: I hereby certify that the statements furnished in this report present the data and information required for this wetland determination, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

X 

Greg Davis

Contracted Wetland Scientist for Naiad Biological Consulting

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Section 1 Summary of Findings and Conclusions

A wetland determination was completed for Organic Humboldt, LLC to determine the presence or absence of wetlands within the established Study Area.

The Study Area is located approximately 2.95 air miles southeast of Scotia, CA off Stafford Road and is bordered by the Eel River. Several wetlands associated with the riparian vegetation of Eel River are identified within the Study Area by the United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI).

Upon further study, no wetlands were identified within the Study Area. The only aquatic resource identified during this assessment was the Eel River and its associated riparian dripline.

The potential development located in the upper elevation pasture of the Survey Area should be sited to avoid impacts to aquatic resources. A 150-ft buffer was applied to the Eel River, however, due to most of the riparian dripline being located over 50-ft from the ordinary high-water mark of the Eel River, the more conservative buffer of 100-ft was applied to the riparian dripline as per Humboldt County guidelines.

Section 2 Introduction, Background, and Project Understanding

2.1 Purpose and Need

This wetland determination report has been prepared at request from Organic Humboldt, LLC to aid in the planning for potential land development. This assessment is intended to identify aquatic resources that may fall under the jurisdiction of regulatory agencies including, but not limited to, the U.S. Army Corps of Engineers (USACE), North Coast Regional Water Quality Control Board, and the California Department of Fish and Wildlife.

2.2 Biologist's Qualifications

The wetland determination for this Report was conducted by Greg Davis. Greg, a contracted wetland scientist of Naiad Biological Consulting, holds a Bachelor of Science Degree in Rangeland Resource Science with a concentration in wildland soils from Humboldt State University. He is a certified wetland delineator through Richard Chinn Environmental Training and has 6 years of professional experience conducting wetland delineations, watershed assessments, and botanical surveys in Northern California.

2.3 Study Area Description and Geographic Setting

This report considers the wetland communities that could be affected by the proposed project based on available spatial data and observations made during a site visit.

On March 12th, 2021, a wetland determination was conducted on the subject parcel, within a focused Survey Area, to assess potential impacts associated with land development.

The parcel (APN: 205-231-029) where the proposed project site is to occur is 11.66 acres in size (Appendix A, Map 1). This parcel is located approximately 2.95 air miles southeast of Scotia, California within the Scotia 7.5-minute quadrangles. The Study Area is located within the Eel River watershed. The elevation of the center of the proposed project site is approximately 120 feet (~36.5 meters) above sea level (Google Earth Pro, 2021).

Section 3 Methods

3.1 Pre-Site Visit Data Compilation and Preparation

An assessment was conducted on the property for jurisdictional waters and wetlands of the United States pursuant to the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (WMVC Supplement, USACE 2010). Sampling locations were chosen based on representative plant communities and topography within the project site (Maps 2 and 3). The sampling locations were evaluated for the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Wetland boundaries were delineated by sampling paired data points to determine wetland to upland transitional areas (Appendix B “*Wetland Determination Data Forms*”).

Federal regulations define wetlands as:

“Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil” [33CFR328.3(b)].

This definition expresses that, under normal conditions, three parameters must be met to classify a site as a jurisdictional wetland, which includes hydrophytic vegetation, hydric soils, and wetland hydrology.

The USFWS National Wetlands Inventory (NWI) does not have wetlands documented within the subject parcel. Due to the lack of field data, this general categorization by NWI is not intended for planning purposes as noted in the “Data Limitations, Exclusions, and Precaution” disclaimer:

The Service’s objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high-altitude imagery. Wetlands are identified based on vegetation, visible hydrology, and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis. (USFWS, 2021)

3.2 Vegetation

The presence of hydrophytic vegetation for each site was determined by applying the wetland indicator status (see Table 1, below) of each plant species present in multiple strata using the *WMVC 2018 Wetland Plant List* (USACE, 2018). A plant species list of the collective sampling points is provided in Appendix C of this report.

Table 1. Wetland Indicator Status Ratings

Indicator Status	Indicator Code	Description	% Occurrence in Wetlands
Obligate	OBL	Occur almost always under natural conditions in wetlands.	99%
Facultative Wetland	FACW	Usually occur in wetlands but occasionally found in non-wetlands.	67-99%
Facultative	FAC	Equally likely to occur in wetlands and non-wetlands.	33-67%
Facultative Upland	FACU	Usually occur in non-wetlands but occasionally found in wetlands.	1-33%
Upland	UPL	Occur in wetlands in another region but occur almost always under natural conditions in non-wetlands in the region specified.	1%

The methodology used for determining the presence of hydrophytic vegetation is dependent on the dominant plant species observed at a sampling location using the 50/20 rule. The WMVC Regional Supplement (USACE, 2008) describes the 50/20 rule as:

“...a repeatable and objective procedure for selecting dominant plant species and is recommended when data are available for all species in the community.

Dominant species are chosen independently from each stratum of the community. In general, dominants are the most abundant species that individually or collectively account for more than 50 percent of the total coverage of vegetation in the stratum, plus any other species that, by itself, accounts for at least 20 percent of the total.”

Hydrophytic vegetation was determined at the sampled locations by using the Dominance Test, which is met when more than 50 percent of the dominant plant species across all strata are rated OBL, FACW, or FAC. If the Dominance Test for hydrophytic vegetation was not met, then the Prevalence Index was applied.

The prevalence index is a weighted-average wetland indicator status of all plant species in the sampling plot or other sampling unit, where each indicator status category is given a numeric code (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5) and weighting is by abundance (absolute percent cover). It is a more comprehensive analysis of the hydrophytic status of the community than one based on just a few dominant species. It is particularly useful (1) in communities with only one or two dominants, (2) in highly diverse communities where many species may be present at roughly equal coverage, and (3) when strata differ greatly in total plant cover (e.g., total herb cover is 80 percent, but sapling/shrub cover is only 10 percent). The prevalence index is used in this supplement (WMVC) to determine whether hydrophytic vegetation is present on sites where indicators of hydric soil and wetland hydrology are present, but the vegetation initially fails the dominance test.

The following procedure is used to calculate a plot-based prevalence index. The method was described by Wentworth et al. (1988) and modified by Wakeley and Lichvar (1997). It uses the same field data (i.e., percent cover estimates for each plant species) that were used to select dominant species by the 50/20 rule, with the added constraint that at least 80 percent of the total vegetation cover on the plot must be of species that have been correctly identified and have an assigned indicator status (including UPL). For any species that occurs in more than one stratum, cover estimates are summed across strata. Steps for determining the prevalence index are as follows:

1. Identify and estimate the absolute percent cover of each species in each stratum of the community. Sum the cover estimates for any species that is present in more than one stratum.
2. Organize all species (across all strata) into groups according to their wetland indicator status (i.e., OBL, FACW, FAC, FACU, or UPL) and sum their cover values within groups. Do not include species that were not identified.
3. Calculate the prevalence index using the following formula:

$$PI = \frac{A_{OBL} + 2A_{FACW} + 3A_{FAC} + 4A_{FACU} + 5A_{UPL}}{A_{OBL} + A_{FACW} + A_{FAC} + A_{FACU} + A_{UPL}}$$

where:

- PI = Prevalence index
- A_{OBL} = Summed percent cover values of obligate (OBL) plant species;
- A_{FACW} = Summed percent cover values of facultative wetland (FACW) plant species;
- A_{FAC} = Summed percent cover values of facultative (FAC) plant species;
- A_{FACU} = Summed percent cover values of facultative upland (FACU) plant species;
- A_{UPL} = Summed percent cover values of upland (UPL) plant species.

For the prevalence index to be met, the value calculated based on the existing cover of plant species must be 3.0 or less.

3.3 Soils

Prior to the site inspection, existing soil data was accessed from the USDA Web Soil Survey to identify potential hydric soils located within the project site (See Map 4 and Appendix D). Refer to Table 2 below for a description of the soil map units on the subject parcel.

Table 2. NRCS Web Soil Survey Results for APN 205-231-029

Map Unit Symbol	Soil Map Unit Name	Hydric Soil Rating	
		Major Components	Minor Components
100	Water and Fluvents, 0-2% slopes	Hydric	Hydric
143	Shivelyflat, 0-2% slopes	Not Hydric	Hydric (Weott – 2%)

Soil profiles were examined for hydric soil indicators listed in the WMVC Regional Supplement. The soil profiles for each test pit (TP) within the project site was documented on the associated wetland determination data forms (Appendix B). The Munsell color chart (Gretag/Macbeth, 2000) was used to determine the hue, value, and chroma of soil matrices and redoximorphic features. Soil textures were determined using the texture by feel technique. When characterizing soil profiles, each sampling location was also inspected for wetland hydrology indicators.

3.4 Hydrology

At each test pit, primary and secondary wetland hydrology indicators were documented on the associated wetland determination data forms, if present (Appendix B). Indicators for wetland hydrology are derived from four groups, (A) observation of surface water or saturated soils; (B) evidence of recent inundation; (C) evidence of current or recent soil saturation; and (D) evidence from other site conditions or data. Additional remarks regarding hydrology are included in the field data forms.

Site hydrology was evaluated prior to conducting the assessment of the Project Site by utilizing the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) Climate Analysis for Wetlands Tables (WETS). Precipitation data from the WETS tables was interpreted by using the Direct Antecedent Rainfall Evaluation Method or DAREM (Sprecher and Warne, 2000). The DAREM method utilizes data from the three months prior to inspection to determine whether precipitation, and inherently site hydrology, is “normal”, “drier than normal”, or “wetter than normal” (Sumner et al. 2009). Prior to the March 12th, 2021 inspection, rainfall data for December, January, and February was compared to the 30-year rainfall average sourced from the nearest WETS station in Scotia, CA (1990-2020). Normal precipitation for a given month is defined by falling within the 30th and 70th percentile of the 30-year average rainfall for a given area. Based on the assessment of the WETS table, precipitation was “normal” at the time inspection (Table 3).

Table 3. WETS Rainfall Data

Site Hydrology for March 12, 2021								
Prior Month		WETS Rainfall Percentile ¹ (inches)		Measured Rainfall (inches)	Condition: Dry, Wet, Normal	Condition Value (1=dry, 2=normal, or 3=wet)	Month Weight	Multiply Previous two columns
Name		30th	70th					
1st (most recent)	February	4.36	9.20	5.08	Normal	2	3	6
2nd	January	4.53	10.48	9.50	Normal	2	2	4
3rd	December	5.00	11.43	3.95	Dry	1	1	1
Sum								11
Rainfall of prior period was								Normal²
¹ Rainfall Data is sourced from the Scotia, CA WETS Station ² Drier than normal (sum is 6-9), normal (sum is 10-14), wetter than normal (sum is 15-18)								

Section 4 Results and Discussion

4.1 Existing Site Conditions

On March 12th of 2021, Greg Davis conducted a site inspection to determine the presence of wetlands within the Study Area. Sampling locations within the survey area are shown in Map 2 and photo documentation is included in Appendix E of this document.

4.1.1 TP-1

Test Pit (TP)-1 is located on the left bank of the Eel River and is identified as palustine, seasonally flooded, forested wetland (PFO1C) according the USFWS National Wetland Inventory but was determined to not be located within a wetland (Photos 1-2). The surrounding area has a tree stratum *Alnus rubra* (red alder) – *Salix lasiolepis* (arroyo willow) tree stratum, a *Baccharis pilularis* (coyote brush) – *Toxicodendron diversilobum* (poison oak) shrub stratum, and an herb stratum dominated by *Artemisia douglasiana* (Douglas' wormwood). This sampling location passed the dominance test for hydrophytic vegetation, but no hydric soil indicators were present. The primary wetland hydrology indicator Drift Deposits (B2) was identified at this site, but it does not appear that there is a high frequency of inundation.

4.1.2 TP-2

TP-2 is located on an alluvial terrace of the Eel River and is identified as palustine, seasonally flooded, forested wetland (PFO1C) according the USFWS National Wetland Inventory but was determined to not be located within a wetland (Photos 3-4). The surrounding area has an *Sequoia sempervirens* (redwood) – arroyo willow tree stratum, a *Holcus lanatus* (common velvetgrass) – *Urtica dioica* (stinging nettle) – *Solanum Americanum* (American black nightshade) herb stratum, and a *Rubus ursinus* (California blackberry) vine stratum. This sampling location did not pass the dominance test for hydrophytic vegetation and it did not meet the prevalence index by having a value of 3.42. No hydric soil or wetland hydrology indicators were present at this sampling location.

4.1.3 TP-3

TP-3 is located between the upper elevation pasture and the Eel River (Photos 5-6). The surrounding area has a redwood – *Acer macrophylla* (big leaf maple) tree stratum, a poison oak – *Rubus spectabilis* (salmon raspberry) shrub stratum, a *Carex leptopoda* (taper-fruit short-scale sedge) – *Polystichum munitum* (sword fern) herb stratum, and a *Hedera helix* (English ivy) – California blackberry vine stratum. This sampling location did not pass the dominance test for hydrophytic vegetation and it did not meet the prevalence index by having a value of 3.92. No hydric soil or wetland hydrology indicators were present at this sampling location.

4.1.4 TP-4

TP-4 is located adjacent to the riparian dripline of the Eel River at the eastern edge of the upper elevation pasture (Photos 7-8). The surrounding area has a redwood tree stratum, a *Juncus effusus* (common rush) – *Leucanthemum vulgare* (ox-eye daisy) – velvetgrass herb stratum, and a *Rubus armeniacus* (Himalayan blackberry) vine stratum. This sampling location passed the dominance test for hydrophytic vegetation. No hydric soil or wetland hydrology indicators were present at this sampling location.

4.1.5 TP-5

TP-5 is located in the center of the upper elevation pasture, which appeared lush green on aerial imagery compared to surrounding vegetation (Photo 9). The surrounding area has a *Conium maculatum* (poison hemlock) – *Carduus pycnocephalus* (Italian thistle) – ox-eye daisy herb stratum, and a Himalayan blackberry vine stratum. This sampling location did not pass the dominance test for hydrophytic vegetation and it did not meet the prevalence index by having a value of 4.80. No hydric soil or wetland hydrology indicators were present at this sampling location.

4.1.6 TP-6

TP-6 is located adjacent to the riparian dripline of the Eel River and is a duff covered upland transition to the upper elevation pasture (Photos 10-11). The surrounding area has a redwood tree stratum, a poison oak – salmon raspberry shrub stratum, and a California blackberry vine stratum. This sampling location did not pass the dominance test for hydrophytic vegetation and it did not meet the prevalence index by having a value of 4.29. No hydric soil or wetland hydrology indicators were present at this sampling location.

4.1.7 TP-7

TP-7 is located at the lowest point in the pasture within a depressional swale (Photos 12-13). The surrounding area has a *Festuca arundinacea* (reed fescue) – poison hemlock herb stratum and a Himalayan blackberry vine stratum. This sampling location passed the dominance test for hydrophytic vegetation, but no hydric soil indicators were present. Only one secondary wetland hydrology indicator, Geomorphic Position (D2), was identified at this site.

Section 5 Conclusion

5.1 Potential Impacts and Recommended Mitigation

5.1.1 Potential Direct Impacts

Direct impacts are considered to be effects that may occur to the environment from direct interface associated with the proposed action. As it pertains to aquatic resources, direct impacts can be avoided by limiting potential development to areas outside of the aquatic resource buffers indicated on Map 2.

5.1.2 Potential Indirect Impacts

If best management practices are followed, there are no foreseeable indirect impacts associated with this project to the environment, surrounding habitat, or wildlife.

5.1.3 Recommendations

The following recommendations should be followed and/or taken into consideration through the development of the proposed project and operations:

- Aquatic resource buffers and setbacks should be observed for the identified aquatic resources on the property. The most conservative buffer of the following should be observed.
 - A 150-ft buffer shall be observed for the Eel River; and
 - A 100-ft buffer shall be observed for the identified riparian dripline.
- During the development of this project, best management practices (BMPs) should be used to prevent sediment, fuels, or contaminants from entering the surrounding terrestrial and aquatic environment.
- If any activities are proposed to take place within jurisdictional features, such as surface waters and/or wetlands, the landowner should obtain permission to conduct the construction work from, but not limited to, the following agencies:
 - California Department of Fish and Wildlife, Lake or Streambed Alteration Agreement (LSAA/1600)
 - North Coast Regional Water Quality Control Board, Section 401 Water Quality Certification
 - United States Army Corps of Engineers, Nationwide Permit (NWP) or Section 404 individual permit

5.2 Statement of Limitation

The data and findings presented in this Report are valid to the extent that they represent a wetland determination within the defined Survey Area as of March 12th, 2021. These findings outlined in this

Report are based on one (1) site visit and do not provide conclusive results for any potential features outside of the Survey Area.

Deficiencies in these findings may result from the following:

- The parcel boundaries displayed in the maps created for this Report do not represent a boundary survey. Parcel and property lines shown within these maps are approximated and were acquired from Humboldt County Web GIS, and any errors within these boundaries are a result of errors in Humboldt County's GIS database.
- The aquatic resource buffers and setbacks defined in this Report, and presented in Map 2, only represent buffers to aquatic resources and do not include considerations to other biological resources, cultural resources, environmental hazards, or easements (i.e., plants, wildlife, historical landmarks, slope instability, utilities, etc.). Additional buffers and setbacks may be required for the previously mentioned resources which may alter the size of the potential development defined in this Report. Buffer sizes may vary dependent on desired land use.

Section 6 References

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Appendix A

Maps

Organic Humboldt, LLC Wetland Determination Report

March 2021

Map 1. Site Location Map

Map 2. Wetland Determination Site Map

Map 3. Wetland Determination Survey Path Map

Map 4. NRCS Web Soil Survey Map

**MAP 2.
ORGANIC
HUMBOLDT
WETLAND
DETERMINATION
SITE MAP**



MAP SCALE

0 50 100 ft



LEGEND

 Humboldt
County APN

 Access Roads

 Aquatic
Resource
Buffer

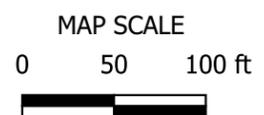
 Riparian
Dripline

 Test Pit
(Upland)

LOCATED AT:
445 Stafford Road
Scotia, CA
95565



**MAP 3.
ORGANIC
HUMBOLDT
SURVEY PATH
MAP**



LEGEND

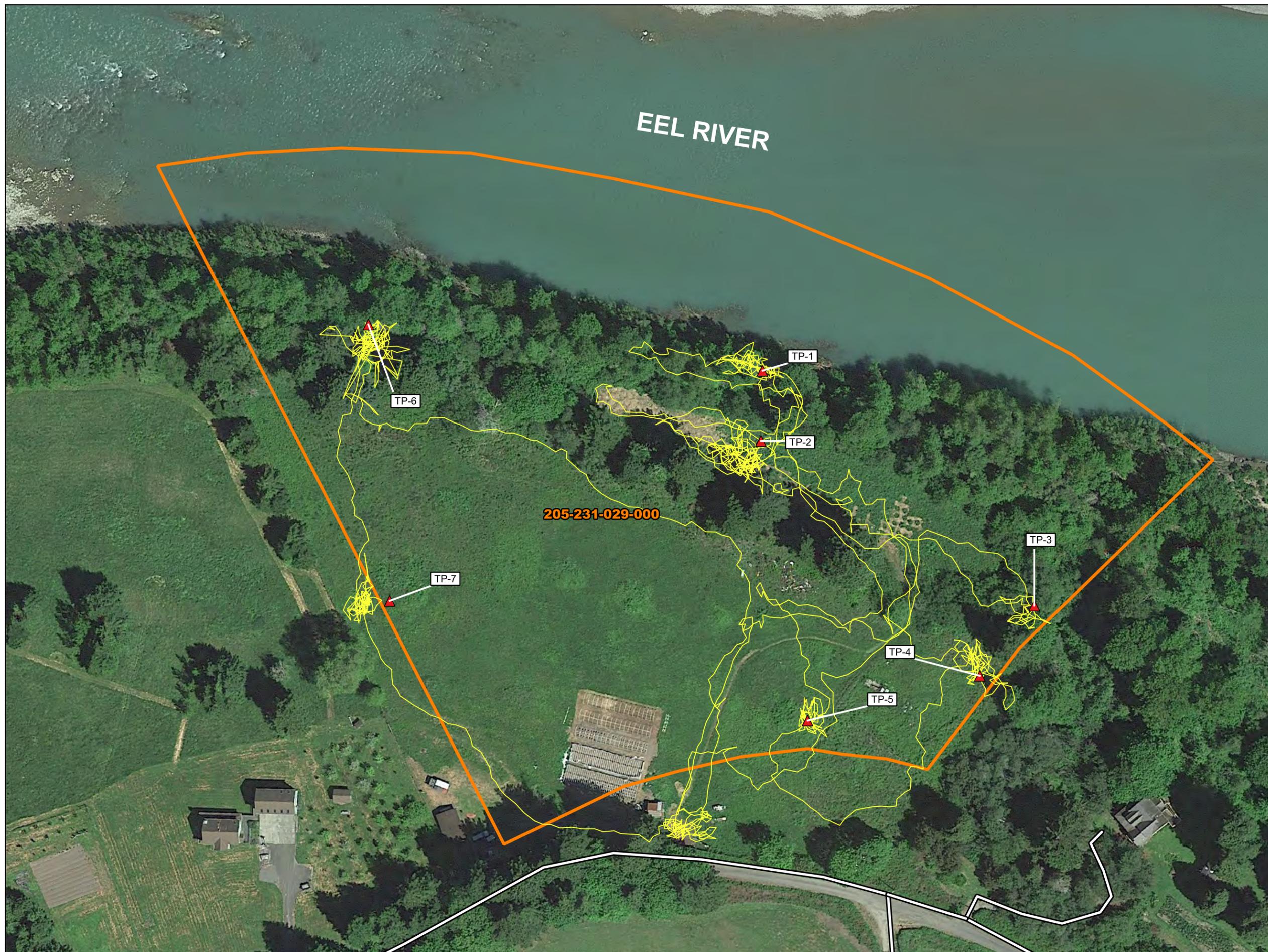
 Humboldt
County APN

 Test Pit
(Upland)

 Access Roads

 Survey Path
(3/12/2021)

LOCATED AT:
445 Stafford Road
Scotia, CA
95565



**MAP 4.
ORGANIC
HUMBOLDT
NRCS WEB SOIL
SURVEY AND
NWI MAP**



MAP SCALE

0 50 100 ft



LEGEND

 Access Roads

 NRCS Soil
Map Unit

 NWI Emergent
Wetlands

 NWI Scrub-Shub
and Forested
Wetlands

NRCS Soil Map Unit Key:

100 - Water and Fluvents

143 - Shivelyflat

LOCATED AT:
445 Stafford Road
Scotia, CA
95565



Appendix B

Wetland Determination Data Forms

Organic Humboldt, LLC Wetland Determination Report

March 2021

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: APN: 205-231-029 City/County: Stafford/Humboldt Sampling Date: 3/12/2021
 Applicant/Owner: Organic Humboldt State: CA Sampling Point: TP-1
 Investigator(s): Greg Davis Section, Township, Range: 22, TIN, RIE
 Landform (hillslope, terrace, etc.): River bank Local relief (concave, convex, none): Planar Slope (%): 30
 Subregion (LRR): A Lat: 40.459327 Long: -124.052561 Datum: NAD83
 Soil Map Unit Name: 100 NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks: <u>Bank of EEL RIVER. Drift deposits on alders from flood stage (not high frequency)</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25x25</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Alnus rubra</u>	<u>70</u>	<u>x</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. <u>Salix lasiolepis</u>	<u>20</u>	<u>x</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
4. _____				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>90</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10x10</u>)				
1. <u>Baccharis pilularis</u>	<u>15</u>	<u>x</u>	<u>NI</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Toxicodendron diversilobum</u>	<u>10</u>	<u>x</u>	<u>FAC</u>	
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Artemisia douglasiana</u>	<u>10</u>	<u>x</u>	<u>FACW</u>	
2. <u>Cardamine oligosperma</u>	<u>5</u>		<u>FAC</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
<u>15</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>10x10</u>)				
1. <u>Rubus ursinus</u>	<u>15</u>	<u>x</u>	<u>FACU</u>	
2. _____				
<u>15</u> = Total Cover				
% Bare Ground in Herb Stratum <u>85</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks:				

SOIL

Sampling Point: TP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	5Y4/1	100	-	-	-	-	S	
8-16	5Y4/1	100	-	-	-	-	LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
Deposits from Eel river Flood stage

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Primary indicator B3 indicative of flooding, but likely not frequently or for long duration

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: APN: 205-231-029 City/County: Stafford/Humboldt Sampling Date: 3-12-2021
 Applicant/Owner: Organic Humboldt State: CA Sampling Point: TP-2
 Investigator(s): Greg Davis Section, Township, Range: 22, TIN, R1E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Planer Slope (%): 0
 Subregion (LRR): A Lat: 40.4591 Long: -124.0525 Datum:
 Soil Map Unit Name: 143 NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: <u>Historically cleared riparian terrace of Eel river, relatively disturbed and weedy</u>			

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>25x25</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. <u>Seq. sempervirens</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
2. <u>Salix lasiolepis</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. _____				
4. _____				
<u>20</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>15</u> x 2 = <u>30</u> FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species <u>15</u> x 5 = <u>75</u> Column Totals: <u>130</u> (A) <u>445</u> (B) Prevalence Index = B/A = <u>3.42</u>
Sapling/Shrub Stratum (Plot size: <u>10x10</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>10x10</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: - 1 - Rapid Test for Hydrophytic Vegetation - 2 - Dominance Test is >50% - 3 - Prevalence Index is ≤3.0 ¹ - 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) - 5 - Wetland Non-Vascular Plants ¹ - Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Haleus lanatus</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
2. <u>Urtica dioica</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Solanum sp. (americanum)</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
4. <u>Plantago lanceolata</u>	<u>5</u>		<u>FACU</u>	
5. <u>Foeniculum vulgare</u>	<u>5</u>		<u>NI</u>	
6. <u>Brassica rapa</u>	<u>5</u>		<u>FACU</u>	
7. <u>Dipsacus fullonum</u>	<u>5</u>		<u>FAC</u>	
8. <u>Equisetum telmateia</u>	<u>5</u>		<u>FACW</u>	
9. <u>Scrophularia californica</u>	<u>5</u>		<u>FAC</u>	
10. <u>Cardamine oligosperma</u>	<u><1</u>		<u>FAC</u>	
11. <u>Agrostis arvensis</u>	<u><1</u>		<u>FAC</u>	
<u>Conium maculatum</u>	<u><1</u>		<u>PAC</u>	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>10x10</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rubus ursinus</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. _____				
<u>10</u> = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: <u>Cyperus eragrostis (<1%), Agrostis stolonifera (<1%)</u> <u>FACW FACW</u>				
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

SOIL

Sampling Point: TP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/2	100	-	-	-	-	L	
2-16	10YR 4/2	100	-	-	-	-	SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Does not pass FAC-Neutral test

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: APN: 205-231-029 City/County: Stafford/Humboldt Sampling Date: 3/12/2021
 Applicant/Owner: Organic Humboldt State: CA Sampling Point: TP-3
 Investigator(s): Greg Davis Section, Township, Range: 22, TIN, R1E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): 0 Slope (%): 6
 Subregion (LRR): A Lat: 40.4586 Long: -124.0514 Datum: NAD83
 Soil Map Unit Name: 143 NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: <u>Site is located between pasture & Eel river on lower elevation terrace</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25 09²</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Sequoia sempervirens</u>	<u>40</u>	<u>x</u>	<u>NI</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>38%</u> (A/B)														
2. <u>Acer macrophylla</u>	<u>20</u>	<u>x</u>	<u>FACU</u>															
3. <u>Fraxinus latifolia</u>	<u>10</u>		<u>FACW</u>															
4. _____																		
<u>70</u> = Total Cover				Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of:</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>45</u></td> <td>x 5 = <u>225</u></td> </tr> <tr> <td>Column Totals: <u>185</u> (A)</td> <td><u>725</u> (B)</td> </tr> </tbody> </table> Prevalence Index = B/A = <u>3.92</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>40</u>	x 3 = <u>120</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>45</u>	x 5 = <u>225</u>	Column Totals: <u>185</u> (A)	<u>725</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>10</u>	x 2 = <u>20</u>																	
FAC species <u>40</u>	x 3 = <u>120</u>																	
FACU species <u>90</u>	x 4 = <u>360</u>																	
UPL species <u>45</u>	x 5 = <u>225</u>																	
Column Totals: <u>185</u> (A)	<u>725</u> (B)																	
<u>15</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>10'x10'</u>)																		
1. <u>Toxicodendron diversilobum</u>	<u>10</u>	<u>x</u>	<u>FAC</u>															
2. <u>Rubus spectabilis</u>	<u>5</u>	<u>x</u>	<u>FAC</u>															
3. <u>Ribes sp.</u>	<u>4</u>		<u>NI</u>															
4. _____																		
5. _____																		
<u>15</u> = Total Cover																		
Herb Stratum (Plot size: <u>10'x10'</u>)																		
1. <u>Carex leptopoda</u>	<u>20</u>	<u>x</u>	<u>FAC</u>															
2. <u>Polystichum munitum</u>	<u>15</u>	<u>x</u>	<u>FACU</u>															
3. <u>Marrubium oregana</u>	<u>5</u>		<u>NI</u>															
4. <u>Pteridium aquilinum</u>	<u>5</u>		<u>FACU</u>															
5. <u>Urtica dioica</u>	<u>5</u>		<u>FAC</u>															
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
<u>50</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>10'x10'</u>)																		
1. <u>Hedera helix</u>	<u>40</u>	<u>✓</u>	<u>FACU</u>															
2. <u>Rubus ursinus</u>	<u>10</u>	<u>✓</u>	<u>FACU</u>															
3. _____																		
<u>50</u> = Total Cover																		
% Bare Ground in Herb Stratum <u>50</u>																		
Hydrophytic Vegetation Indicators: — 1 - Rapid Test for Hydrophytic Vegetation — 2 - Dominance Test is >50% — 3 - Prevalence Index is ≤3.0 ¹ — 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) — 5 - Wetland Non-Vascular Plants ¹ — Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																		
Remarks:																		

SOIL

Sampling Point: TP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 9/3	100	-	-	-	-	S/L	Duffy
2-6	10YR 9/2	100	-	-	-	-	SL	
6-14	7.5YR 4/2	100	-	-	-	-	SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Sandy, alluvial deposits

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)

- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: APN: 205-231-029 City/County: Stafford/Humboldt Sampling Date: 3/12/2021
 Applicant/Owner: Organic Humboldt State: CA Sampling Point: TP-4
 Investigator(s): Greg Davis Section, Township, Range: 22, TIN, R1E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, flat): Planar Slope (%): 0-2
 Subregion (LRR): A Lat: 40.458436 Long: -124.051687 Datum: WGS84
 Soil Map Unit Name: 143 NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: <u>Site adjacent to riparian dripline w/in edge of pasture</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25x25'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Sequoia sempervirens</u>	<u>10</u>	<u>x</u>	<u>NI</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (NB)
2. _____				
3. _____				
4. _____				
<u>10</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>10'x10'</u>) 1. <u>-</u> 2. <u>-</u> 3. <u>-</u> 4. <u>-</u> 5. <u>-</u>				
<u>-</u> = Total Cover				
Herb Stratum (Plot size: <u>10'x10'</u>) 1. <u>Juncus effusus</u> <u>30</u> <u>x</u> <u>FACW</u> 2. <u>Leucanthemum vulgare</u> <u>30</u> <u>x</u> <u>FACU</u> 3. <u>Holecus lanatus</u> <u>25</u> <u>x</u> <u>FAC</u> 4. <u>Lonicum maculatum</u> <u>5</u> <u>FAL</u> 5. <u>Carex leptopoda</u> <u>5</u> <u>FAC</u> 6. <u>Diptacus fullonum</u> <u>5</u> <u>FAC</u> 7. _____ 8. _____ 9. _____ 10. _____ 11. _____				
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>10x10'</u>) 1. <u>Pubus armeniacus</u> <u>20</u> <u>x</u> <u>FAC</u> 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>-</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: <u>Disturbed muddy area</u>				

SOIL

Sampling Point TP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-6	10YR 9/1	100	-	-	-	S:CL	
6-18	10YR 3/2	100	-	-	-	S:CLL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: APN: 205-231-029 City/County: Stafford/Humboldt Sampling Date: 3/12/2021
 Applicant/Owner: Organic Humboldt State: CA Sampling Point: TP-5
 Investigator(s): Greg Davis Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-2
 Subregion (LRR): A Lat: 40.458291 Long: -124.052353 Datum: WGS84
 Soil Map Unit Name: 143 NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		

Remarks: Site is located in center of pasture/project site. On aerial imagery, this area appeared more lush than surrounding vegetation

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)																
1. _____																				
2. _____																				
3. _____																				
4. _____																				
_____ = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>70</u></td> <td>x 3 = <u>210</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>65</u></td> <td>x 5 = <u>325</u></td> </tr> <tr> <td>Column Totals: <u>130</u> (A)</td> <td><u>625</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.80</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>70</u>	x 3 = <u>210</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>65</u>	x 5 = <u>325</u>	Column Totals: <u>130</u> (A)	<u>625</u> (B)	Prevalence Index = B/A = <u>4.80</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>70</u>	x 3 = <u>210</u>																			
FACU species <u>20</u>	x 4 = <u>80</u>																			
UPL species <u>65</u>	x 5 = <u>325</u>																			
Column Totals: <u>130</u> (A)	<u>625</u> (B)																			
Prevalence Index = B/A = <u>4.80</u>																				
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover																				
Herb Stratum (Plot size: <u>10x10</u>) 1. <u>Conium maculatum</u> <u>30</u> <u>x</u> <u>FAC</u> 2. <u>Carduus pycnocephala</u> <u>20</u> <u>x</u> <u>NI</u> 3. <u>Leucanthemum vulgare</u> <u>20</u> <u>x</u> <u>FACU</u> 4. <u>Holcus lanatus</u> <u>10</u> <u></u> <u>FAC</u> 5. <u>Silybum marianum</u> <u>10</u> <u></u> <u>NI</u> 6. <u>Helianthus scaberrimus</u> <u>5</u> <u></u> <u>NI</u> 7. <u>Equisetum telmateia</u> <u>5</u> <u></u> <u>FACW</u> 8. _____ 9. _____ 10. _____ 11. _____ _____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>10x10</u>) 1. <u>Rubus armeniacus</u> <u>30</u> <u>x</u> <u>FAC</u> 2. _____ _____ = Total Cover																				
% Bare Ground in Herb Stratum _____																				
Remarks: _____																				

Hydrophytic Vegetation Present? Yes _____ No

SOIL

Sampling Point: TP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR3/1	100	-	-	-	-	L	Gravelly
2-17	10YR3/2	100	-	-	-	-	S, CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: APN: 205-231-029 City/County: Stafford/Humboldt Sampling Date: 3/12/2021
 Applicant/Owner: Organic Humboldt State: CA Sampling Point: TP-6
 Investigator(s): Greg Davis Section, Township, Range: 22, TIN, R1E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): 0 Slope (%): 4
 Subregion (LRR): A Lat: 40.459437 Long: -124.05401 Datum: NAD83
 Soil Map Unit Name: 143 NWI classification: PFO1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>				
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>				
Remarks: <u>Site is adjacent to riparian zone of Eel river. Surrounding area is duff covered upland that is zone between pasture & riparian dripline</u>						

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25x25</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
1. <u>Sequoia sempervirens</u>	<u>65</u>	<u>X</u>	<u>NI</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u>	(A)
2. <u>Umbellularia californica</u>	<u>5</u>		<u>FAC</u>	Total Number of Dominant Species Across All Strata:	<u>4</u>	(B)
3. <u>Acer macrophylla</u>	<u>5</u>		<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>50%</u>	(A/B)
4. _____				= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>10x10'</u>)				Prevalence Index worksheet:		
1. <u>Toxicodendron diversilobum</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	Total % Cover of:		
2. <u>Rubus spectabilis</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	OBL species	<u>0</u>	x 1 = <u>0</u>
3. _____				FACW species	<u>2</u>	x 2 = <u>4</u>
4. _____				FAC species	<u>31</u>	x 3 = <u>93</u>
5. _____				FACU species	<u>17</u>	x 4 = <u>68</u>
= Total Cover				UPL species	<u>69</u>	x 5 = <u>345</u>
Herb Stratum (Plot size: <u>10x10</u>)				Column Totals:	<u>119</u>	(A) <u>510</u> (B)
1. <u>Carex leptopoda</u>	<u>2</u>	<u>-</u>	<u>FAC</u>	Prevalence Index = B/A = <u>4.29</u>		
2. <u>Athyrium filix-femina</u>	<u>2</u>	<u>-</u>	<u>NI</u>	Hydrophytic Vegetation Indicators:		
3. <u>Galium sp.</u>	<u>2</u>	<u>-</u>	<u>FAC</u>	- 1 - Rapid Test for Hydrophytic Vegetation		
4. <u>Stachys sp.</u>	<u>2</u>	<u>-</u>	<u>FAC</u>	- 2 - Dominance Test is >50%		
5. <u>Marah oregana</u>	<u>2</u>	<u>-</u>	<u>NI</u>	- 3 - Prevalence Index is ≤3.0 ¹		
6. <u>Petasites frigidus</u>	<u>2</u>	<u>-</u>	<u>FACW</u>	- 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
7. _____				- 5 - Wetland Non-Vascular Plants ¹		
8. _____				- Problematic Hydrophytic Vegetation ¹ (Explain)		
9. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
10. _____				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
11. _____						
Woody Vine Stratum (Plot size: _____)						
1. <u>Rubus ursinus</u>	<u>10</u>	<u>X</u>	<u>FACU</u>			
2. <u>Hedera helix</u>	<u>2</u>		<u>FACU</u>			
= Total Cover						
% Bare Ground in Herb Stratum <u>94</u>						
Remarks: <u>Bare ground is duff</u>						

SOIL

Sampling Point: TP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/3	100	-	-	-	-	-	Duff
1-10	2.5Y 3/2	100	-	-	-	-	SL	
10-14	7.5YR 5/1	100	-	-	-	-	LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: APN: 205-231-029 City/County: Stafford/Humboldt Sampling Date: 3/12/2021
 Applicant/Owner: Organic Humboldt State: CA Sampling Point: TP-7
 Investigator(s): Greg Davis Section, Township, Range: 22, TIN, R1E
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 4
 Subregion (LRR): A Lat: 40.458617 Long: -124.053993 Datum: NAD84
 Soil Map Unit Name: 143 NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: <u>Site is located in western portion of parcel in low point / swale</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100%</u> (A/B)
4. _____	_____	_____	_____	= Total Cover	
Sapling/Shrub Stratum (Plot size: <u> </u>)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x 1 = _____
3. _____	_____	_____	_____	FACW species _____	x 2 = _____
4. _____	_____	_____	_____	FAC species _____	x 3 = _____
5. _____	_____	_____	_____	FACU species _____	x 4 = _____
= Total Cover				UPL species _____	x 5 = _____
Herb Stratum (Plot size: <u>10x10</u>)				Column Totals:	_____ (A) _____ (B)
1. <u>Festuca arundinacea</u>	<u>30</u>	<u>x</u>	<u>FAC</u>	Prevalence Index = B/A = _____	
2. <u>Conium maculatum</u>	<u>30</u>	<u>x</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
3. <u>Cardamine oligosperma</u>	<u>15</u>		<u>FAC</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
4. <u>Leucanthemum vulgare</u>	<u>10</u>		<u>FACU</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
5. <u>Raphanus sativus</u>	<u>5</u>		<u>NI</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
6. <u>Geranium dissectum</u>	<u>5</u>		<u>NI</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
7. <u>Vicia sativa</u>	<u>5</u>		<u>UPL</u>	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹	
8. <u>Mentha pulegium</u>	<u><1</u>		<u>OBL</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
= Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: <u>10x10</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. <u>Rubus armeniacus</u>	<u>5</u>	<u>x</u>	<u>FAC</u>		
2. _____	_____	_____	_____	= Total Cover	
% Bare Ground in Herb Stratum _____					
Remarks:					

SOIL

Sampling Point: TP-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/1	100	-	-	-	-	S.L	
2-14	10YR 3/1	100	-	-	-	-	S.CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes _____ No _____ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Site is @ low point/swale in pasture

Appendix C

Plant Species List

Organic Humboldt, LLC Wetland Determination Report

March 2021

Scientific Name	Common Name	Stratum	Indicator Status
<i>Acer macrophylla</i>	Big leaf maple	Tree	FACU
<i>Agrostis stolonifera</i>	Creeping bentgrass	Herb	FACW
<i>Alnus rubra</i>	Red alder	Tree	FAC
<i>Artemisia douglasiana</i>	Douglas' wormwood	Herb	FACW
<i>Athyrium filix-femina</i>	Lady fern	Herb	NI
<i>Baccharis pilularis</i>	Coyote brush	Shrub	NI
<i>Brassica rapa</i>	Common mustard	Herb	FACU
<i>Cardamine oligosperma</i>	Little western bittercress	Herb	FAC
<i>Carduus pycnocephalus</i>	Italian thistle	Herb	NI
<i>Carex leptopoda</i>	Taper-fruit short-scale sedge	Herb	FAC
<i>Cirsium vulgare</i>	Bullthistle	Herb	FACU
<i>Conium maculatum</i>	Poison hemlock	Herb	FAC
<i>Cynosurus echinatus</i>	Bristly dogstail grass	Herb	NI
<i>Cyperus eragrostis</i>	Tall flat sedge	Herb	FACW
<i>Dipsacus fullonum</i>	Teasel	Herb	FAC
<i>Equisetum telmateia ssp. braunii</i>	Giant horsetail	Herb	FACW
<i>Festuca arundinacea</i>	Reed fescue	Herb	FAC
<i>Foeniculum vulgare</i>	Fennel	Herb	NI
<i>Galium sp.</i>	Bedstraw	Herb	FAC
<i>Geranium dissectum</i>	Wild geranium	Herb	NI
<i>Hedera helix</i>	English ivy	Vine	FACU
<i>Helminthotheca echioides</i>	Bristly oxtongue	Herb	NI
<i>Holcus lanatus</i>	Common velvetgrass	Herb	FAC
<i>Juncus effusus</i>	Common rush	Herb	FACW
<i>Leucanthemum vulgare</i>	Ox-eye daisy	Herb	FACU
<i>Lysimachia arvensis</i>	Scarlet pimpernel	Herb	FAC
<i>Marah oregana</i>	Coastal man-root	Herb	NI
<i>Mentha pulegium</i>	Pennyroyal	Herb	OBL
<i>Petasites frigidus</i>	Arctic sweet coltsfoot	Herb	FACW

Scientific Name	Common Name	Stratum	Indicator Status
<i>Plantago lanceolata</i>	English plantain	Herb	FACU
<i>Pteridium aquilinum var. pubescens</i>	Western bracken fern	Herb	FACU
<i>Raphanus sativus</i>	Jointed charlock	Herb	NI
<i>Ribes sp.</i>	Gooseberry	Shrub	UNK
<i>Rubus armeniacus</i>	Himalayan blackberry	Vine	FAC
<i>Rubus spectabilis</i>	Salmon raspberry	Shrub	FAC
<i>Rubus ursinus</i>	California blackberry	Vine	FACU
<i>Salix lasiolepis</i>	Arroyo willow	Tree	FACW
<i>Scrophularia californica</i>	California figwort	Herb	FAC
<i>Sequoia sempervirens</i>	Redwood	Tree	NI
<i>Silybum marianum</i>	Milk thistle	Herb	NI
<i>Solanum americanum</i>	American black nightshade	Herb	FACU
<i>Stachys sp.</i>	Hedgenettle	Herb	FAC
<i>Toxicodendron diversilobum</i>	Poison oak	Shrub	FAC
<i>Umbellularia californica</i>	Bay laurel	Tree	FAC
<i>Urtica dioica</i>	Stinging nettle	Herb	FAC
<i>Vicia sativa</i>	Garden vetch	Herb	UPL

Appendix D

NRCS Web Soil Survey Map Unit Descriptions

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March 2021

Humboldt County, South Part, California

100—Water and Fluvents, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 119dm

Elevation: 10 to 50 feet

Mean annual precipitation: 40 to 75 inches

Mean annual air temperature: 50 to 59 degrees F

Frost-free period: 300 to 330 days

Farmland classification: Not prime farmland

Map Unit Composition

Water: 60 percent

Fluvents and similar soils: 35 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Landform: Rivers on channels

Down-slope shape: Concave, linear

Across-slope shape: Linear

Description of Fluvents

Setting

Landform: Point bars on channels

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave, convex

Across-slope shape: Linear

Parent material: Alluvium derived from mixed

Typical profile

A - 0 to 13 inches: gravelly fine sandy loam

C - 13 to 59 inches: extremely gravelly sandy loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high to high (0.60 to 6.00 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: FrequentNone

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 5w

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: B/D

Other vegetative classification: Riparian & Wetland Vegetation
(RNPR001CA)

Hydric soil rating: Yes

Minor Components

Typic udifluvents

Percent of map unit: 4 percent

Landform: Meandering channels

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 1 percent

Landform: Channels

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Data Source Information

Soil Survey Area: Humboldt County, South Part, California

Survey Area Data: Version 9, Jun 1, 2020

Humboldt County, Central Part, California

143—Shivelyflat, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: v6gz
Elevation: 50 to 490 feet
Mean annual precipitation: 40 to 70 inches
Mean annual air temperature: 54 to 57 degrees F
Frost-free period: 300 to 350 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Shivelyflat and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Shivelyflat

Setting

Landform: Flood-plain steps
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Alluvium derived from mixed sedimentary sources

Typical profile

Ap1 - 0 to 8 inches: silt loam
Ap2 - 8 to 17 inches: silt loam
Ap3 - 17 to 31 inches: silt loam
C1 - 31 to 40 inches: silt loam
C2 - 40 to 54 inches: silt loam
C3 - 54 to 73 inches: silt loam
C4 - 73 to 79 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 10 to 20 inches
Frequency of flooding: RareNone
Frequency of ponding: Frequent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very high (about 12.4 inches)

Interpretive groups

Land capability classification (irrigated): 2w

Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Hydric soil rating: No

Minor Components

Pepperwood

Percent of map unit: 5 percent
Landform: Flood-plain steps
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Eelriver

Percent of map unit: 5 percent
Landform: Flood-plain steps
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Cottoneva

Percent of map unit: 3 percent
Landform: Flood-plain steps
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Weott

Percent of map unit: 2 percent
Landform: Depressions, flood-plain steps, backswamps
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Humboldt County, Central Part, California

Survey Area Data: Version 6, Jun 1, 2020

Appendix E

Photo Documentation

Organic Humboldt, LLC Wetland Determination Report

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Photo 1. View of the TP-1 sampling location on the banks of the Eel River.



Photo 2. View of the soil profile at TP-1 lacking hydric soil indicators. Note the coarse-grained substrate from over bank deposits.



Photo 3. View of the TP-2 sampling location in the lower elevation terrace.



Photo 4. View of the soil profile at TP-2 lacking hydric soil indicators.



Photo 5. View of the TP-3 sampling location.



Photo 6. View of the soil profile at TP-3 lacking hydric soil indicators.



Photo 7. View of the TP-4 sampling location at the eastern edge of the upper elevation pasture.



Photo 8. View of the soil profile at TP-4 lacking hydric soil indicators.



Photo 9. View of the soil profile at TP-5 lacking hydric soil indicators.



Photo 10. View of the TP-6 sampling location with the Eel River in the background.



Photo 11. View of the soil profile at TP-6 lacking hydric soil indicators.



Photo 12. View of the TP-7 sampling location at the low point in the western edge of the parcel. Note that the site is within a swale feature.



Photo 13. View of the soil profile at TP-7 lacking hydric soil indicators.